

THERE IS CLAIMED:

1. A method of transferring information signals between two separate send/receive interfaces which are part of the same communication device, the method including processing of said signals, wherein said two interfaces use, at least for information data useful to users, referred to as user data, similar transmission structures and protocols, and in particular similar formats and apply opposite processing sequences for a particular incoming signal, one of said interfaces converts modulated data into baseband data and the other of said interfaces converts said baseband data into modulated data, or vice-versa, which method:
 - distinguishes between user data and signaling data,
 - applies all processing operations to said signaling data to enable it to be interpreted by each of said interfaces, and
 - applies to said user data only processing operations needed to transfer it from a first of said interfaces to the other of said interfaces without reproducing or reconstituting or interpreting its content.
2. The method claimed in claim 1 wherein, when the following two processing sequences i) and ii) are applied to said signaling data:
 - i) demodulation/burst demultiplexing/burst decomposition/decryption, where applicable/data de-interleaving/data channel decoding/source decoding, and
 - ii) source coding/channel coding/coded data interleaving/encryption, where applicable/burst composition/burst multiplexing/modulationthen only the following restricted processing sequences iii) and iiiii) are applied to said user data by the interfaces concerned:
 - iii) demodulation/burst demultiplexing/burst decomposition/decryption, where applicable, and
 - iiii) encryption, where applicable/burst composition/burst multiplexing/modulation.
3. The method claimed in claim 2 wherein said restricted processing sequences are applied to said user data as a function of an activated or de-activated state of a communication function requiring specific additional processing of reproduced or reconstituted user data.
4. The method claimed in claim 1 wherein said two interfaces are radio interfaces, one of them is a radio interface for a cordless telephone local area network, the other is a radio interface for a cellular telecommunication network for mobile stations, and said interfaces are part of a fixed base station of said cordless

telephone local area network.

5. The method claimed in claim 1 wherein said two interfaces are radio interfaces which are part of a communication device also including a controller of sender-receiver centers or base stations of a radiocommunication network including fixed base stations distributed over a given territory and a plurality of mobile stations such as cellular telephones.
6. A communication device integrating at least two separate send/receive interfaces using, at least for information data useful to users, referred to as user data, similar transmission structures and protocols, and in particular formats, and applying opposite processing sequences for a particular incoming signal, wherein one of said interfaces converts modulated data into baseband data and the other of said interfaces converts said baseband data into modulated data, or vice-versa, and information signals are transferred between said two interfaces in accordance with a method of transferring information signals between two separate send/receive interfaces which are part of the same communication device, the method including processing of said signals, wherein said two interfaces use, at least for information data useful to users, referred to as user data, similar transmission structures and protocols, and in particular similar formats and apply opposite processing sequences for a particular incoming signal, one of said interfaces converts modulated data into baseband data and the other of said interfaces converts said baseband data into modulated data, or vice-versa, which method:
 - distinguishes between user data and signaling data,
 - applies all processing operations to said signaling data to enable it to be interpreted by each of said interfaces, and
 - applies to said user data only processing operations needed to transfer it from a first of said interfaces to the other of said interfaces without reproducing or reconstituting or interpreting its content.
7. The device claimed in claim 6 wherein, when the following two processing sequences i) and ii) are applied to said signaling data:
 - i) demodulation/burst demultiplexing/burst decomposition/decryption, where applicable/data de-interleaving/data channel decoding/source decoding, and
 - ii) source coding/channel coding/coded data interleaving/encryption, where applicable/burst composition/burst multiplexing/modulationthen only the following restricted processing sequences iii) and ii) are

applied to said user data by the interfaces concerned:

iii) demodulation/burst demultiplexing/burst decomposition/decryption,
where applicable, and

iiii) encryption, where applicable/burst composition/burst
multiplexing/modulation.

8. The device claimed in claim 7 wherein said restricted processing sequences are applied to said user data as a function of an activated or de-activated state of a communication function requiring specific additional processing of reproduced or reconstituted user data.
9. The device claimed in claim 6 wherein said two interfaces are radio interfaces, one of them is a radio interface for a cordless telephone local area network, the other is a radio interface for a cellular telecommunication network for mobile stations, and said interfaces are part of a fixed base station of said cordless telephone local area network.
10. The device claimed in claim 6 wherein said two interfaces are radio interfaces which are part of a communication device also including a controller of sender-receiver centers or base stations of a radiocommunication network including fixed base stations distributed over a given territory and a plurality of mobile stations such as cellular telephones.
11. The communication device claimed in claim 6, wherein said two interfaces are radio interfaces providing transmission between stations of the same network or of two different networks.
12. The communication device claimed in claim 11 further including a controller of sender-receiver centers or base stations controlling at least two base stations of a cellular radiocommunication network including fixed base stations distributed over a given territory and a plurality of mobile stations.
13. The communication device claimed in claim 11 constituting a fixed base station of a cordless telephone local area network, wherein one of said interfaces provides the link with said mobile station or stations of said local area network and the other of said interfaces provides the connection to one or more fixed or mobile stations of a cellular telecommunication network.